

1. A method comprising:  
controlling a variable power supply to supply power to an electronic device at different supply levels; and  
dynamically controlling a value of one or more power supply controller parameters in controlling the variable power supply to supply power to the electronic device.
2. The method of claim 1, wherein the dynamically controlling comprises controlling a value of one or more power supply controller parameters based on one or more operating parameters of the electronic device.
3. The method of claim 2, wherein the dynamically controlling comprises controlling the value of one or more power supply controller parameters based on a current supply level of power supplied by the variable power supply.
4. The method of claim 2, wherein the dynamically controlling comprises controlling the value of one or more power supply controller parameters based on a current one of a plurality of operation states of the electronic device.
5. The method of claim 4, wherein the electronic device comprises subscriber line interface circuitry and has at least an off-hook operation state, an on-hook operation state, and a ringing operation state.

6. The method of claim 2, wherein the dynamically controlling comprises controlling the value of one or more power supply controller parameters based on a current supply level range.
7. The method of claim 2, wherein the dynamically controlling comprises controlling the value of one or more power supply controller parameters based on a target supply level of power to be supplied by the variable power supply.
8. The method of claim 2, wherein the dynamically controlling comprises controlling the value of one or more power supply controller parameters based on a target one of a plurality of operation states of the electronic device.
9. The method of claim 2, wherein the dynamically controlling comprises controlling the value of one or more power supply controller parameters based on a target supply level range.
10. The method of claim 1, wherein the dynamically controlling comprises controlling the value of one or more control system loop filter compensator settings, one or more modulator settings, one or more digital-to-analog converter settings, and/or one or more analog-to-digital converter settings.
11. The method of claim 1, wherein the variable power supply comprises a direct-current to direct-current (DC-DC) converter and wherein the controlling the variable power supply comprises generating one or more control signals to control the DC-DC converter.

12. An electronic device comprising:

a supply level controller coupled to control a variable power supply to supply power to the electronic device at different supply levels; and

a controller parameter(s) controller coupled to control one or more power supply controller parameters for the supply level controller dynamically as the supply level controller controls the variable power supply to supply power to the electronic device.

13. The electronic device of claim 12, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on one or more operating parameters of the electronic device.

14. The electronic device of claim 13, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on a current supply level of power supplied by the variable power supply.

15. The electronic device of claim 13, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on a current one of a plurality of operation states of the electronic device.

16. The electronic device of claim 15, wherein the electronic device comprises subscriber line interface circuitry and has at least an off-hook operation state, an on-hook operation state, and a ringing operation state.

17. The electronic device of claim 13, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on a current supply level range.

18. The electronic device of claim 13, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on a target supply level of power to be supplied by the variable power supply.

19. The electronic device of claim 13, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on a target one of a plurality of operation states of the electronic device.

20. The electronic device of claim 13, wherein the controller parameter(s) controller comprises circuitry to control one or more power supply controller parameters based on a target supply level range.

21. The electronic device of claim 12, wherein the supply level controller comprises a modulator and wherein the controller parameter(s) controller comprises circuitry to control one or more settings for the modulator.

22. The electronic device of claim 12, wherein the supply level controller comprises a loop filter and wherein the controller parameter(s) controller comprises circuitry to control one or more compensator settings for the loop filter.

23. The electronic device of claim 12, wherein the supply level controller comprises an analog-to-digital converter (ADC) and wherein the controller parameter(s) controller comprises circuitry to control one or more settings for the ADC.

24. The electronic device of claim 12, wherein the supply level controller comprises a digital-to-analog converter (DAC) and wherein the controller parameter(s) controller comprises circuitry to control one or more settings for the DAC.

25. The electronic device of claim 12, wherein the variable power supply comprises a direct-current to direct-current (DC-DC) converter and wherein the supply level controller is to generate one or more control signals to control the DC-DC converter.

26. The electronic device of claim 12, in combination with the variable power supply.

27. An apparatus comprising:

means for controlling a variable power supply to supply power to an electronic device at different supply levels; and

means for dynamically controlling a value of one or more power supply controller parameters as the variable power supply is controlled.

28. The apparatus of claim 27, comprising means for performing one or more BORSCHT functions.